

## ABSTRACT

Improved methods and apparatus for providing optimal anti-tachycardia pacing (ATP) regimens in response to the return cycle length (RCL) exhibited by an exploratory ATP sequence initially applied upon detection of the tachycardia episode are disclosed. When a tachycardia episode is detected, an exploratory ATP sequence comprising a burst of pacing pulses is delivered, and an exploratory RCL is measured following delivery of the exploratory ATP sequence. A database of successful and unsuccessful ATP regimens associated with stored exploratory RCL values. The measured exploratory RCL and database are utilized to formulate an ATP regimen that is more likely than not to convert the tachycardia episode to NSR.